Standard Kit for Special Clutch for Die-Cast Cover Instruction Manual

(Coming with a kit for 3-speed close transmission gear)

・Thank you for purchasing one of our products. Please strictly follow the following instructions in installing and using the kit.
・Before installing the kit, please be sure to check the kit contents. Should you have any questions about the kit, please contact your local motorcycle dealer.

Item No.：**０２－０１－５０９２** (Only for 3-speed transmission)
Compatible Models and Frame No.:
XR50R ：AE03-1000001～
CRF50F ：AE03-1400001～

◎ **Please note that the descriptions in this manual like illustrations and photos may differ from the actual hardware.**

Features

○ With this kit, a cetrifugal clutch transmission can be changed to a manual one.
○ As the clutch is installed on the secondary side (on the transmission main shaft), the friction loss on the crankshaft can be reduced and the crankshaft durability and throttle response can be improved.
○ We have designed the number of clutch friction disks to be five in order to correspond to the high-powered engine with a large engine displacement.
○ Six pieces of dampers are fixed to the primary driven gear, which works to reduce the shock felt at the time of letting in the clutch.
○ This kit comes with a 3-speed close ratio gear set, which is compatible with a bore up kit and suitable for off-road driving.

Read all instructions first before starting the installation.

◎ We do not take any responsibility for any accident or damage whatsoever arising from the use of the kit not in conformity with the instructions in the manual.
◎ We shall be held free from any responsibility or compensation whatsoever for any glitch in the parts other than ours if the glitch takes place after the installation and use of the kit.
◎ If you make modifications to any product of the kit, we shall be held free from any guarantee of the product.
◎ You are kindly requested not to contact us about the combination of our products with other manufacturers'.
◎Please note that this kit is designed for exclusive use in the above-mentioned compatible models and frame numbers only and that it cannot be mounted on other models.
◎ This kit doesn't come with a clutch cover. A TAKEGAWA-made extra-cost die-cast clutch cover kit is necessary.
◎ This kit cannot be used on a stock transmission. Install the supplied gear kit.
◎The supplied clutch lever is for installation on a handle pipe of 22.2 mm in diameter. The clutch lever cannot be installed onto a stock handle pipe. A change of handle pipe is necessary.
◎ The installation of this kit makes it impossible to install a stock muffler. Therefore, please use our TAKEGAWA-made racing muffler and exhaust muffler (Item No. 04-01-012).
◎ Installation of this kit requires removal and installation of an engine, disassembly of a crankcase, special tools and some processing. This instruction manual, as well as a HONDA's service manual, is prepared for those who have acquired basic skill and knowledge. Therefore, those who are technically unskilled or inexperienced may not be able to install the kit correctly or may be unable to install at all, leading to parts breakage.
◎Unlike general stock-cars, XR50R and CRF50F are for use in racing only as off-road motorcycles. And unlike general mass production motorcycles, these two models are unwarranted, which please note beforehand.
◎ Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.
◎ This manual should be retained for future reference.

⚠ CAUTION The following show the envisioned possibility of injuries to human bodies and property damage as a result of disregarding the following cautions.

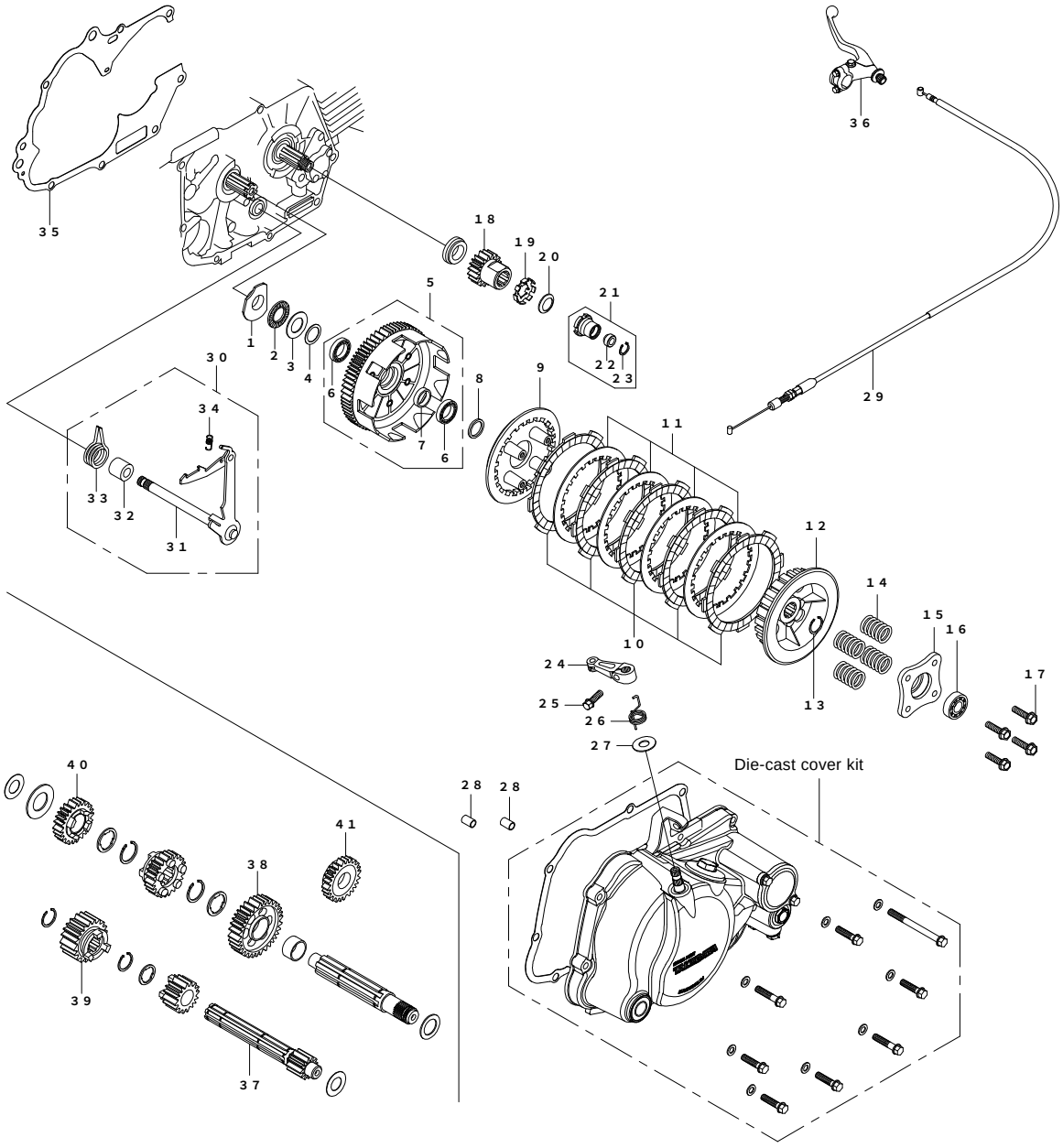
- Before starting the installation, make sure the engine and muffler are cool. (Otherwise, you will burn yourself.)
- Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Otherwise, these parts may get damaged or fall off, resulting in accidents.)
- As some products and frames have sharp edges or protruding portions, please work with your hands protected. (Otherwise, you will suffer injuries.)
- Before riding, always check every section for slack in parts like screws. If you find slack ones, screw them securely up to the specified torque. (Otherwise, improper tightening may cause parts to come off.)

⚠ WARNING The following show the envisioned possibility of human death or serious injuries to human bodies as a result of disregarding the following cautions.

- Always start the engine in a well-ventilated place, and do not turn on the engine in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
- When you notice something abnormal with your motorcycle while riding, immediately stop riding and park your motorcyle in a safe place to check what has gone wrong. (Otherwise, the abnormality could lead to accidents.)
- Before doing work, place the motorcycle on level ground to stablize the position of your motorcycle for safety's sake. (Otherwise, your motorcycle could overturn and injure you while you are working.)
- Check or carry out maintenance of your motorcycle correctly according to the procedures in the instruction manual or service manual. (Improper checking or maintenance could lead to accidents.)
- If you find damaged parts when checking and performing maintenance of your motorcycle, do not use these parts any longer, and replace them with new ones. (The continued use of these damaged parts could lead to accidents.)
- As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. Since vaporized accumulation of gasoline is at the high risk of explosion, work in a well-ventilated place.

Oct./15/ 12

Kit Contents



No.	Part Name	Qty	Repair Part Item No.	In packs of
1	Thrust bearing seat	1	22301-181-T00	1
2	Thrust bearing, 17 mm	1	00-02-0061	1
3	Thrust washer, 17x30x1	1	00-02-0060	1
4	Washer, 17x23x0.5	1	00-02-0097	1
5	Clutch outer COMP., 67T	1	00-02-0030	1
6	Radial ball bearings, 6803	2	00-00-0024	2
7	Distance collar	1	28242-181-T00	1
8	Clutch spacer, 17x21.5x3	1	23512-GEF-T00	1
9	Clutch pressure plate	1	22350-KRL-T00	1
10	Clutch friction disks	5	00-02-0026	5
11	Clutch plates	4	00-02-0029	4
12	Clutch center	1	22120-181-T00	1
13	External circlip, 17 mm	1	00-02-0005	1
14	Clutch springs	4	22401-181-T00	4
15	Clutch lifter plate	1	22361-GEF-T00	1
16	Radial ball bearing, 6001	1	00-00-0021	1
17	Flange hex bolt, 6x22	4	00-02-0098	4
18	Primary drive gear, 18T	1	23121-181-T01	1
19	Lock washer, 14 mm	1	90431-001-T00	1
20	Conical spring washer, 14 mm	1	00-02-0036	1
21	Lock nut COMP., 14 mm	1	90200-181-T00	1

No.	Part Name	Qty	Repair Part Item No.	In packs of
22	Oil seal, 6x13x5	1	00-02-0037	1
23	C-ring, 13 mm	1	00-02-0099	1
24	Clutch release arm	1	22812-181-T00	1
25	Flang bolt, 6x18	1	00-00-0023	1
26	Clutch release arm spring	1	22815-165-T00	1
27	Plain washer, 10 mm	1	00-00-0151	1
28	Dowel pins, 8x12	2	00-00-0153	2
29	Clutch cable, COMP. 910mm	1	22870-181-T20	1
30	Gear shift arm, ASSY. 181mm	1	00-02-0324	1
31	Gear shift arm, COMP.	1		
32	Collar, 12.2 mm	1		
33	Gear shift return spring	1		
34	Gear shift arm spring	1		
35	Crankcase gasket	1	00-01-0096	1
36	Clutch lever assembly	1	02-01-028	1
37	Main shaft, 13T	1	23211-GCF-T10	1
38	Counter shaft first gear, 34T	1	23421-GCF-T00	1
39	Main shaft third gear, 21T	1	23471-GCF-T10	1
40	Counter shaft third gear, 27T	1	23481-GCF-T10	1
41	Kick starter pinion, 24T	1	28211-GEF-T00	1

※ Please order repair parts with the Repair Part Item No. Without the repair part item No., we may not be able to provide the correct parts. Some parts are only available as a set. Please order them with the set number.

Installation Procedures

This Installation Procedures relate to the work at a stage after the engine has already been demounted from the frame. For the work before this stage, please refer to an owner's or service manual, instruction manual, or engine tuning master book.

Disassembly:

(Please do the following work referring to an owner's manual & /or a service manual.)

1. Disassemble an engine, and then separate a crankcase.
2. Detach a kick starter spindle, and then a transmission, gear shaft drum and all.

Assembly:

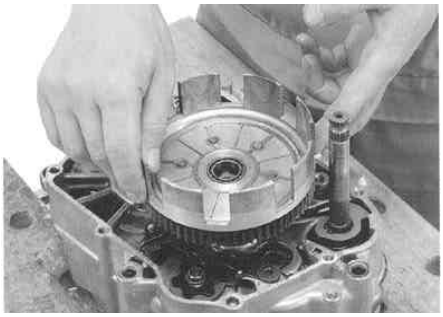
Transmission assembly

※ Please refer to an Instruction Manual for a 3-Speed Close Transmission Gear Kit (Item No. 02-04-254).

Installation of primary drive gear

1. First make sure that a stock collar is in the crankshaft. Then attach a primary drive gear, lock washer, and conical spring washer, which please fasten with a lock nut for the moment.
   ※ Be careful about the direction in which to attach the conical spring washer.

2. Into a transmission main shaft, put a thrust bearing seat, thrust bearing, thrust washer, and washer in this order, and attach a clutch outer COMP to the transmission main shaft.
   ※ Set the thrust bearing seat in the location so its protrusion gets stuck on the crankcase, preventing it from rotating
   ※ Apply engine oil to the thrust washer and clutch outer ball bearing.



3. Using a gear holder, tighten the lock nut to the specified torque with the crankshaft being seated in detect, and fold back the hook on the lock washer.

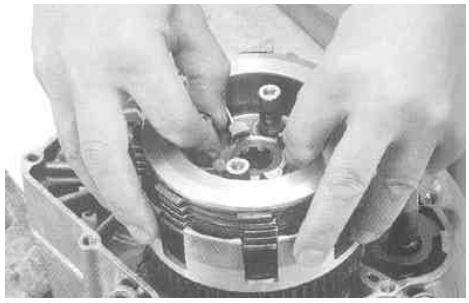
⚠ Caution: Apply the specified torque.
Torque: 39 N • m (4.0 kgf • m)

※ After tightening the lock nut to the specified torque, turn the lock nut in the direction of tightening if the hook on the lock washer does not fit in the lock nut groove. Keep other hooks in close contact with the lock nut.

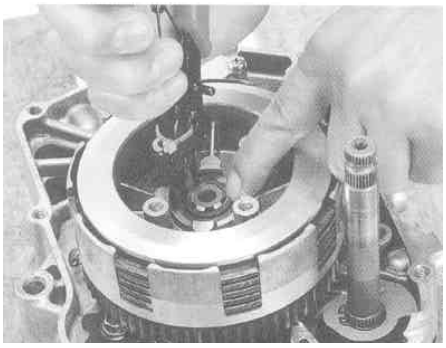
Clutch assembly:

1. To clutch center, attach alternately one each of five friction disks and four clutch plates, and then a clutch pressure plate.
   ※ Apply engine oil to both sides of the clutch friction disk.
   ※Check that the bumpy surfaces of the clutch center and clutch friction disk are meshing well with each other.

2. Attach the clutch spacer to the transmission main shaft.
   Fitting the protrusion on the clutch friction disk into the groove in the clutch outer, and also fitting, at the same time, the spline on the clutch center into the spline on the main shaft, attach the clutch assembly.



3. Fit the supplied external circlip to the groove in the main shaft with the circlip's round corner on the downside.
   ※ Don't expand the circlip more than necessary.
   ※In case you find it hard to fit the circlip into the mainshaft groove, then do the work lifting up the main shaft.



4. Place four clutch springs into the pressure-plate boss, and fix the clutch lifter plate with a flange hex bolt. And tighten it to the specified torque diagonally in a few steps.

⚠ Caution: Apply the specified torque.
Torque: 12 N • m (1.2 kgf • m)

Assembly of right crankcase cover and clutch cable

※ Please assemble these parts referring to the instruction manual for the die-cast clutch cover kit.
※Please assemble the engine referring to the instruction manual for the relative engine.

SPECIAL PARTS TAKEGAWA Co.,Ltd.
3-5-16 Nishikiorihigashi Tondabayashi
Osaka Japan
TEL : 81-721-25-1357 FAX : 81-721-24-5059
URL : http://www.takegawa.co.jp

Notice on installing Special clutch or Dry Clutch

A collar attached to a crankshaft should be used an genuine one.
Please noted that never attach the collar included in Takegawa Heavy-Duty 3 disc clutch kit as it is different size.
It will be a cause to damage if it installed. In the worst case it will cause to destroy the engine.
As the diagram below indicates, height and shape are different. Please confirm.

Genuine collar

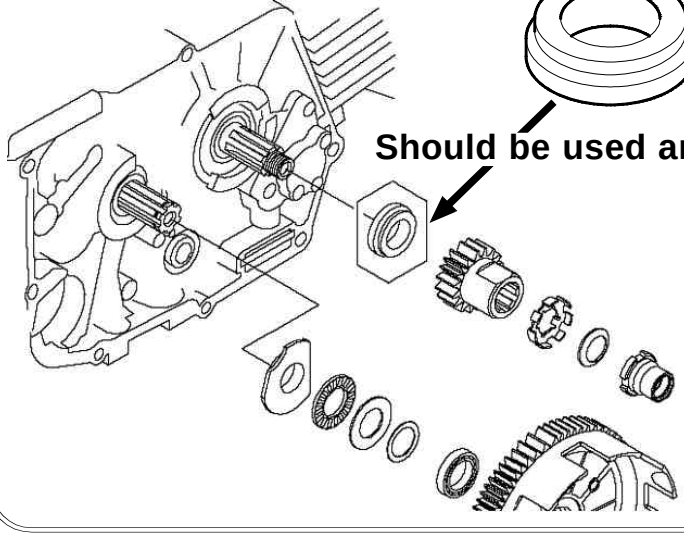
flat

8mm

Collar included in Takegawa Heavy-Duty 3 disc clutch kit

step

10mm



Should be used an genuine one.

Do not use.

※There are two types of Heavy-Duty 3 disc clutch kit. One uses the included collar and the other one uses the genuine collar.